

IN THE CLAIMS

Please amend claim 1 as follows:

1. (CURRENTLY AMENDED) An improved A processing system for forming golf ball preforms comprising high Mooney viscosity polybutadiene, said system comprising:
  - an internal mixer that compounds a batch of golf ball core stock, the internal mixer having a mixer outlet;
  - a sheeter that forms sheets of golf ball core stock, the sheeter having a sheeter inlet proximate the mixer outlet and having a sheeter outlet; and
  - preform shaping means for forming golf ball core preforms from the sheets of golf ball core stock,

wherein the improved processing system eliminates the need for a two-roll mill.
2. (ORIGINAL) The system of claim 1, wherein the sheeter includes:
  - an extruder portion and a calendar portion,
  - the extruder portion receiving the compounded golf ball core stock from the mixer outlet and having at least one screw that feeds the compounded golf ball core stock to the calendar portion,
  - the calendar portion having a first roller and a second roller that is upwardly displaced from the first roller to define a nip point where the sheets of golf ball core stock are formed from the compounded golf ball core stock.
3. (ORIGINAL) The system of claim 2, wherein the preform shaping means includes:
  - a warm-up mill for warming the sheets of golf ball core stock; and
  - an extruder for forming golf ball core preforms of a desired shape from the warmed sheets of golf ball core stock.
4. (ORIGINAL) The system of claim 3, further including a cool down unit for cooling the sheets of golf ball core stock prior to being warmed by the warm-up mill.
5. (ORIGINAL) The system of claim 4, wherein the warm-up mill combines the first-mentioned batch of golf ball core stock with a second batch of core stock to form the warmed sheets of golf ball core stock.

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6. (ORIGINAL) The system of claim 3, further including means for rolling the warmed sheets of golf ball core stock into "pigs" prior to being extruded into the golf ball core preforms.
7. (ORIGINAL) The system of claim 2, wherein the extruder portion includes two counter-rotating screws that feed the compounded golf ball core stock to the calendar portion.
8. (ORIGINAL) The system of claim 1, further including an extruder that forms golf ball core preforms of a desired shape from the sheets of golf ball core stock.
9. (ORIGINAL) The system of claim 8, further including means for rolling the sheets of golf ball core stock into "pigs" prior to being extruded into golf ball core preforms.
10. (WITHDRAWN) The system of claim 1, wherein the sheeter includes:
  - an extruder portion and a die head portion,
  - the extruder portion receiving the compounded golf ball core stock from the mixer outlet and having at least one screw that feeds the compounded golf ball core stock to the die head portion,
  - the die head portion having at least one die and the compounded golf ball core stock being extruded through the at least one die to form golf ball preforms of a desired shape.
11. (WITHDRAWN) The system of claim 10, wherein the extruder portion includes two counter-rotating screws that feed the compounded golf ball core stock to the calendar portion.
12. – 19. (CANCELED)
20. (WITHDRAWN) A golf ball preform manufactured by the processing system of claim 1.
21. (WITHDRAWN) A golf ball preform manufactured by the method comprising:
  - compounding a batch of golf ball core stock in a mixer;
  - sheeting the batch of compounded golf ball core stock with a sheeter, the sheeter including an extruder portion having at least one screw; and
  - shaping golf ball preforms from the sheeted batch of golf ball core stock.

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Please add new claim 22 as follows:

22. (NEW) The system of claim 1, wherein the polybutadiene has a Mooney viscosity of from about 65 to about 85.